

City of Northampton

# Proposed FY2017 Water and Sewer Rates

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MAYOR DAVID J. NARKEWICZ & DEPARTMENT OF PUBLIC WORKS

APRIL 2016

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# FY2016 Water and Sewer Rate Freeze

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- November 2014 Reorganization of City Government transferred rate setting authority from former Board of Public Works to Mayor/City Council
- March 2015 Mayor submits proposed water and sewer rates for FY2016 using existing flat-rate structure with no change to fixed service charges
  - Water: proposed increase from \$5.58/CCF to \$5.74/CCF
  - Sewer: proposed increase from \$6.09/CCF (100% water consumption) to \$6.27/CCF
- Proposed rates represented a 2.88% for all water and sewer customers
- Public Hearing on FY2016 rates elicited important feedback
- April 2015 Mayor Recommends freezing FY2016 rates at FY2015 levels to allow additional time for:
  - Research on alternate rate structures, conservation incentives, low-income rate relief, etc.
  - DPW to finalize and hold public forums on Comprehensive Waste Water Management Plan and Water Supply System Assessment Management Plan

# Water and Sewer Rate Study Commissioned:

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City contracts with Raftelis Financial Consultants, Inc. (RFC) and Woodcock & Associates, Inc. (W-A) to study water and sewer rates:

- Assess the appropriateness of the City's current rate structures in comparison to Northampton's rate structure objectives
- Develop a forecast of water and sewer rates to fund all current and future operating and capital needs while also accomplishing the City's rate structure objectives

# Rate Structure Objectives:

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- Promote conservation
- Provide assistance to economically disadvantaged customers
- Improve equity among customer types
- Enhance revenue stability

# Key Water Capital Needs

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## FY2017 – FY2021 Water Line Replacement - \$4,000,000:

Conz/North Farms/North Maple/Day: Design and Construction

Hinckley Street Construction

Damon Road Waterline Design and Construction

Other Projects - TBD

## FY2021 – Reservoir Dam Repairs: \$3,500,000

F.P. Ryan Reservoir

West Whately Reservoir Dam

# Key Sewer Capital Needs

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## FY2017 – FY2021 Sewer Line Replacements and System Studies - \$2,565,000

Day Avenue/Hinckley Street  
Other Projects - TBD

## FY2017 – FY2021 Wastewater Treatment Plant Improvements - \$29,981,000

\$1,319,000 - Design: Aeration tanks/Disinfection system/flow measurement/electrical

\$3,984,000 - Construction: Aeration tanks/Disinfection system/flow measurement/electrical

\$4,606,000 - Design: SCADA controls/dewatering system/sludge pumps/clarifiers/odor  
control/intermediate pumps

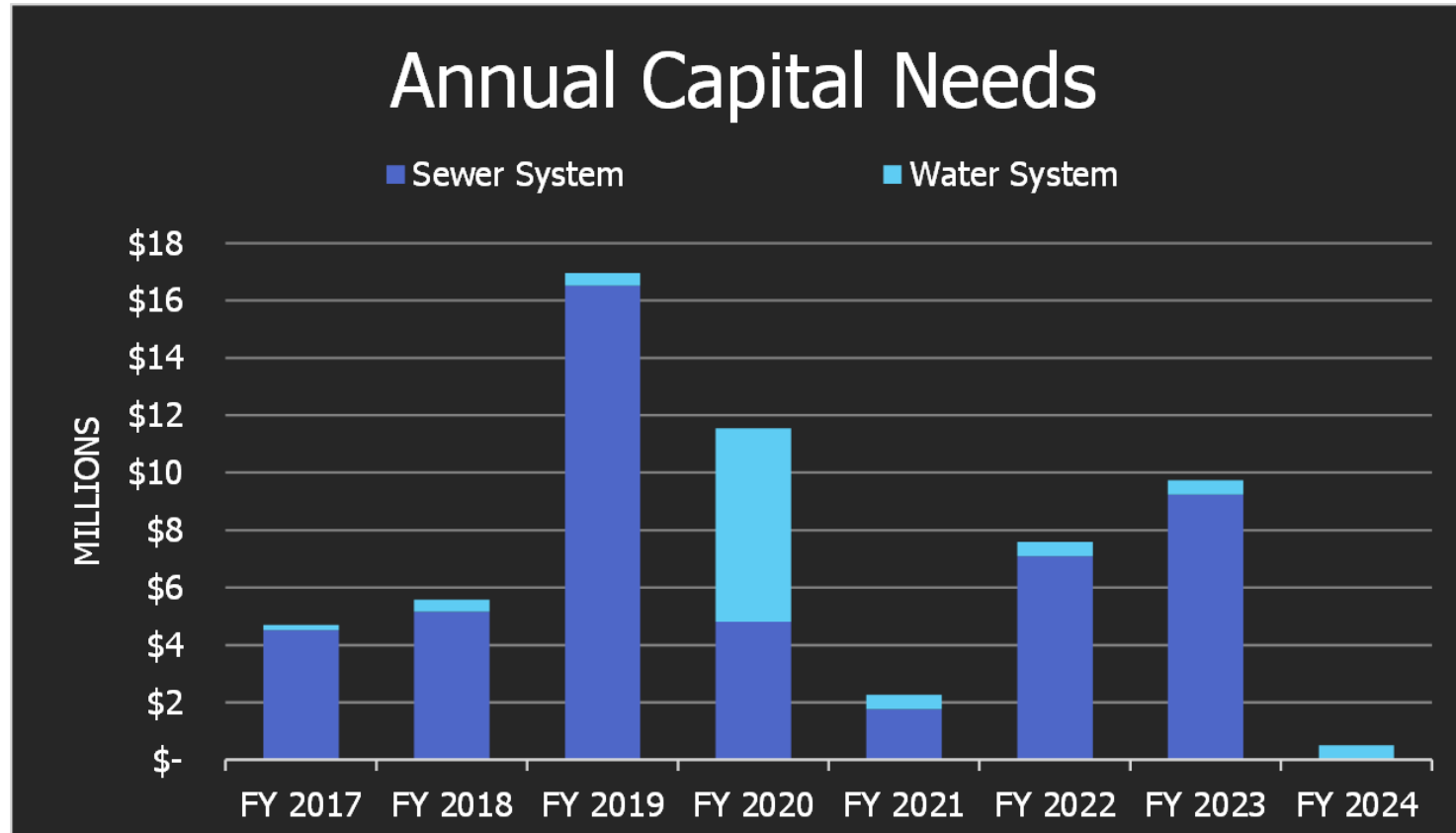
\$15,720,000 - Construction: SCADA controls/dewatering system/sludge pumps/clarifiers/odor  
control/intermediate pumps

Design: Atwood/Island/Burts Pit/Rick pump stations/Mill River wall rehab

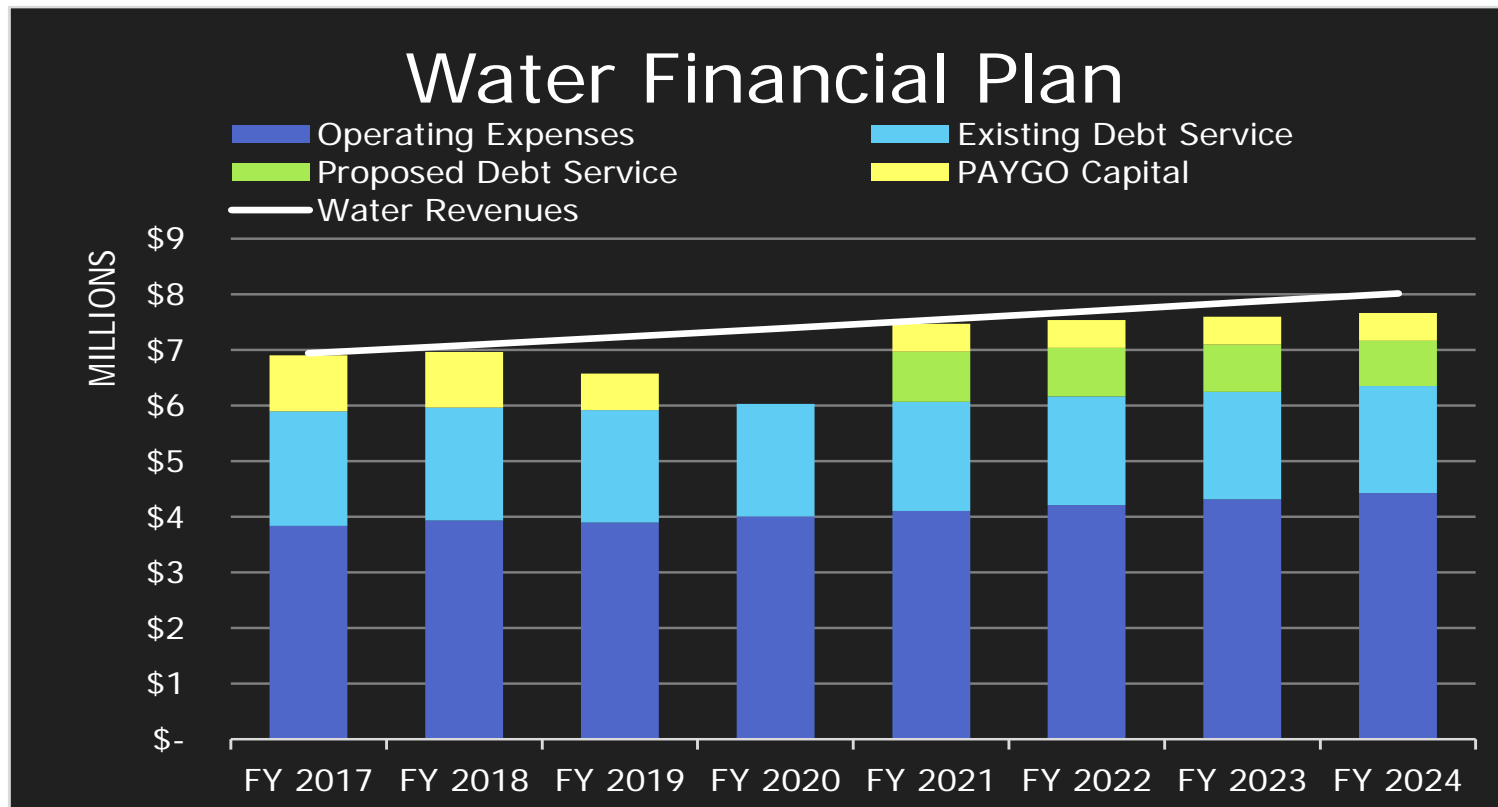
\$4,352,000 - Construction :Atwood/Island/Burts Pit/Rick pump stations/Mill River wall rehab

# Capital Improvements Plan

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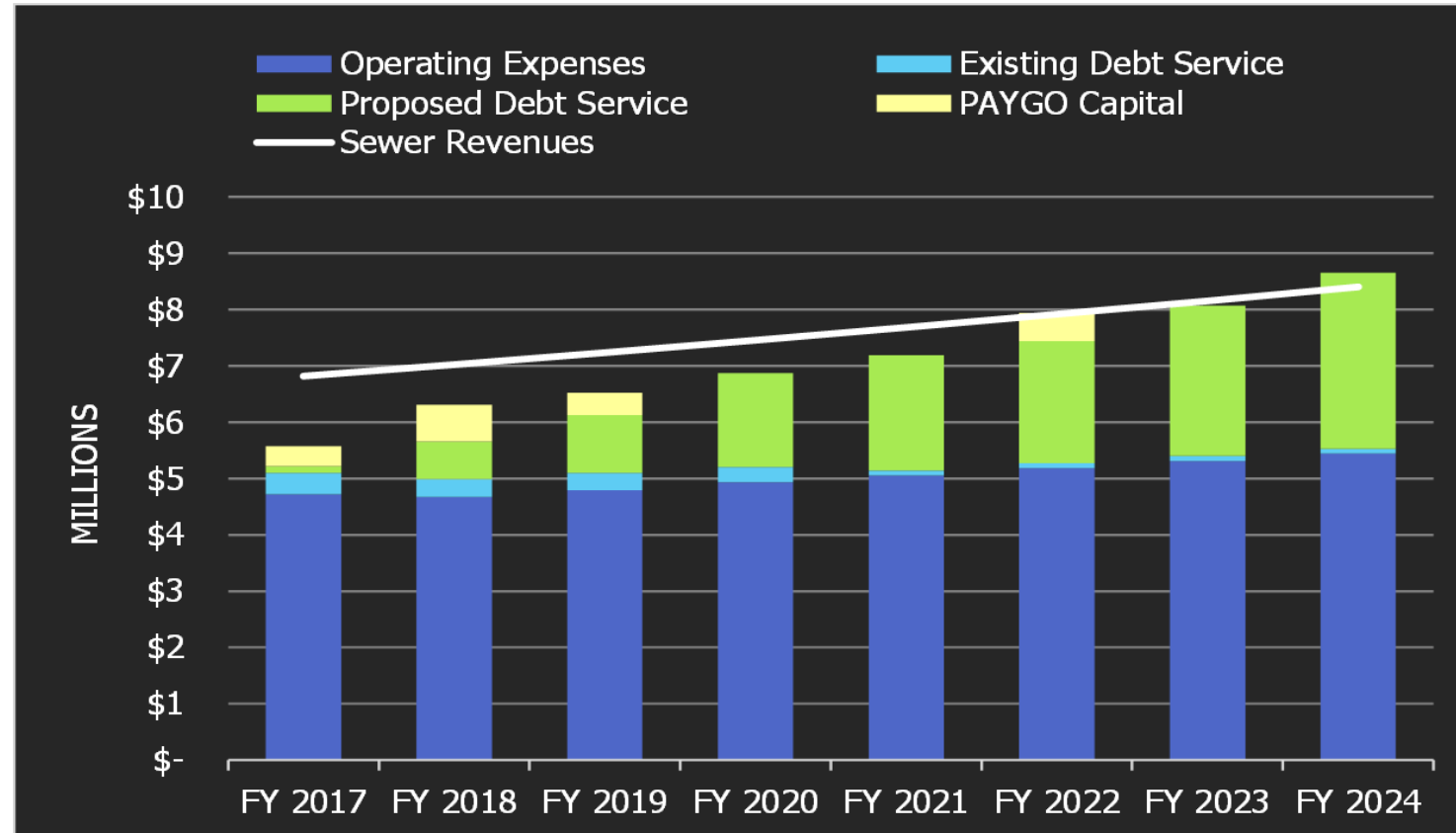


# Water Financial Plan





# Sewer Financial Plan



# CURRENT WATER RATE STRUCTURE

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- All customers are charged the same volumetric rate regardless of type, size, or the amount of water used
- A very small fixed charge is assessed per bill, which recovers very little of the water system's fixed costs
- No private fire protection charges
- FY2016 Water Rate - \$5.58 per CCF

# CURRENT SEWER RATE STRUCTURE

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- All customers are charged for sewer services based on 100% of metered water consumption, except for a small number of large industrial customers
- FY2016 Sewer Rate - \$6.08 per CCF of metered water consumption

# Key Recommendations:

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- Provide economic assistance to customers who qualify based on current tax exemption criteria
- Create a two-tier water rate structure for small meters
- Implement a larger fixed charge
- Create new private fire protection charges
- Bill sewer rate at 80% of metered water consumption

# FY2017 Water and Sewer Rates

## Recommended for City Council Approval

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### **WATER RATE**

Customers with 1" meter or smaller:

Tier 1 consumption: 0 – 16 CCF ~~\$4.73~~ \$4.36 per CCF

Tier 2 consumption: >16 CCF ~~\$6.21~~ \$5.82 per CCF

Customers with meter larger than 1":

All consumption ~~\$6.09~~ \$5.72 per CCF

### **SEWER RATE**

Non-metered \$7.52 per CCF based on 80% of metered water consumption

Metered \$7.52 per CCF

# 16 CCF Conservation Rate

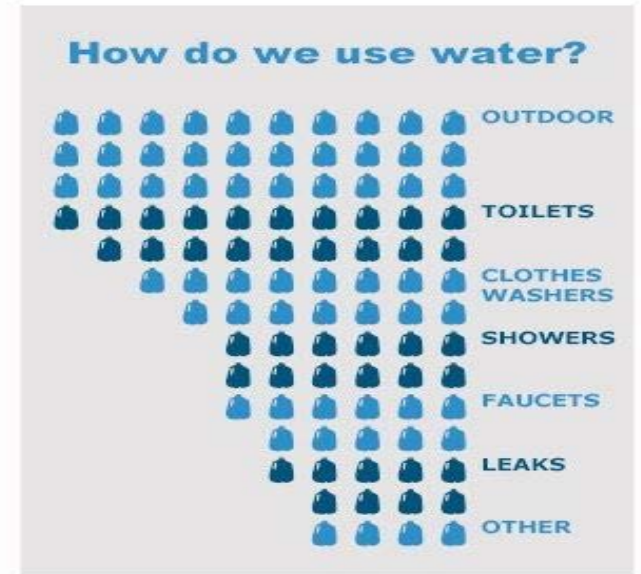
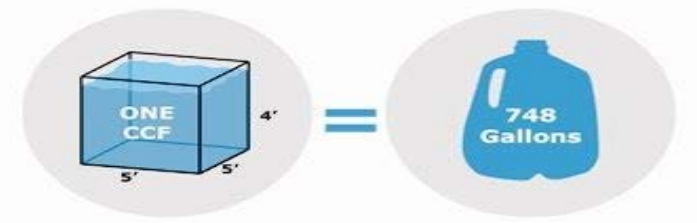
DEP Daily Individual Consumption Goal =  
65 gallons/person/day

65 gallons/person/day x 2.07 average household  
= 134.6 gallons/day/average household

134.6 gallons/day/average household divided by  
7.48 gallons (1 cubic foot) = 18.00 cubic feet

18.00 cubic feet x 90 days = 1,620 cubic feet per  
quarter

1,620 cubic feet per quarter divided by 100 =  
16 CCF per quarter



# FY2017 Quarterly Fixed Charge

Set by Department of Public Works (DPW)

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Meter Size	Quarterly Fixed Charge
5/8"	\$12.64
3/4"	\$18.96
1"	\$31.59
1.5"	\$63.17
2"	\$101.07
3"	\$189.51
4"	\$315.85
6"	\$631.69
8"	\$1,010.69

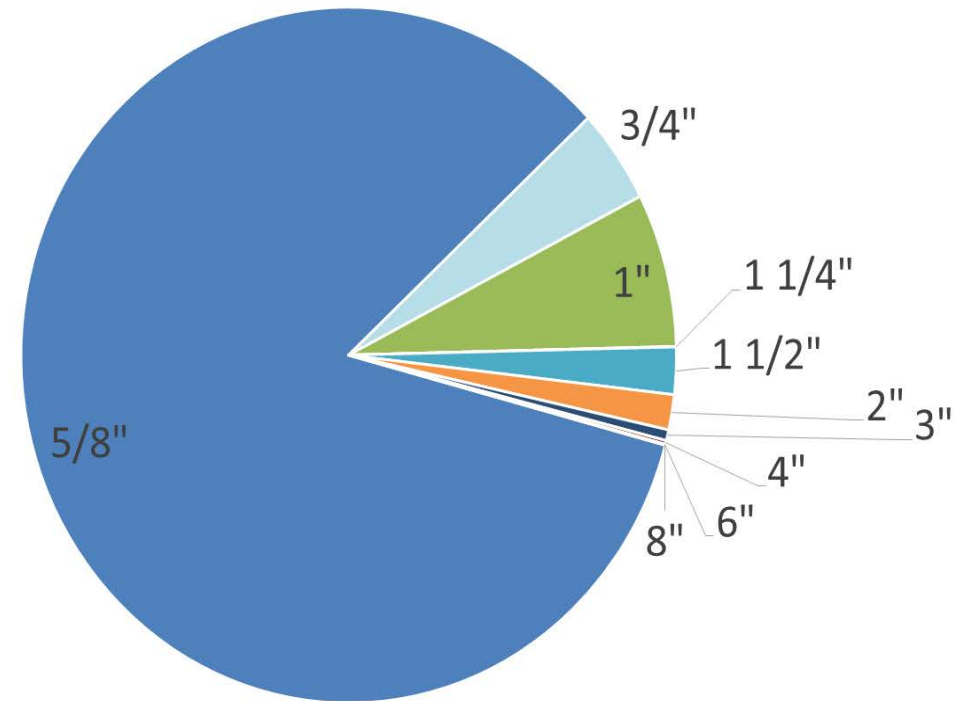
## Affordability Program:

Customers who currently qualify for a low-income exemption on Real Estate or the Community Preservation Act (CPA) will also automatically be exempted from this fixed charge on their utility bill.

This not only reduces the customer's bill, but also removes the only portion of the bill that the customer cannot reduce through conservation

# Customer Breakdown by Meter Size:

Meter Size	Customers	%
5/8"	7151	83.89%
3/4"	375	4.40%
1"	609	7.14%
1 1/4"	2	0.02%
1 1/2"	187	2.19%
2"	139	1.63%
3"	43	0.50%
4"	15	0.18%
6"	2	0.02%
8"	1	0.01%
Total	8524	100.00%





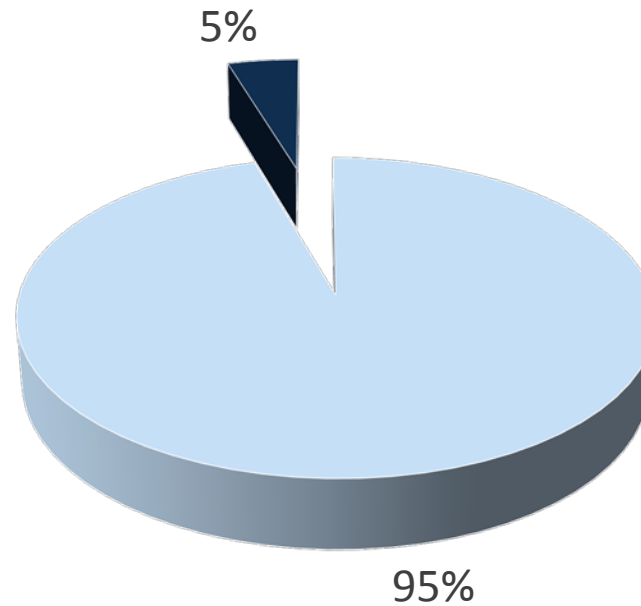
# Customer Breakdown:

## 1" meter or smaller (8,135) vs meter larger than 1" (389)

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Distribution of Customers by Meter Size

■ Meters - less than 1" (8135)    ■ Meters - larger than 1" (389)

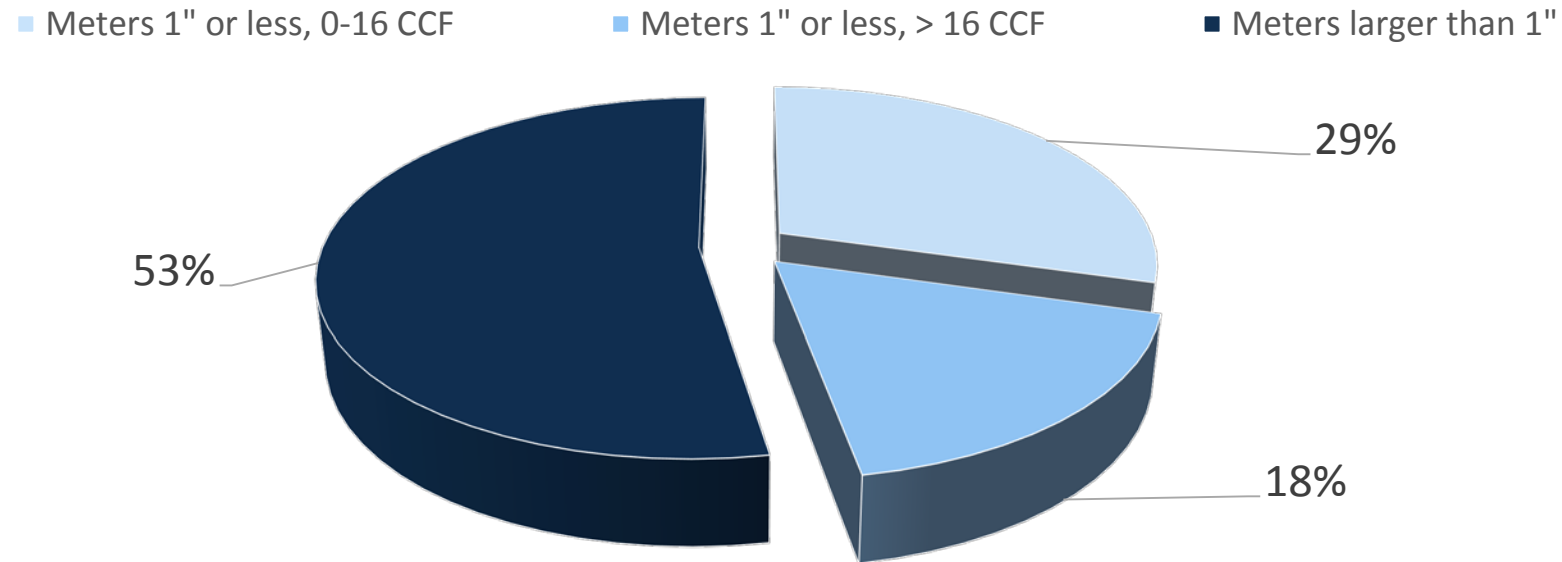


# Distribution of Customers by Water Consumption

5% of the customer base consumes 53% of the water

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Distribution of Water Consumption by Meter Size



# FY2017 Quarterly Fire Protection Charge

## Set by Department of Public Works (DPW)

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Fire Line Diameter	Quarterly Charge
<2"	No Charge
2"	\$10.00
2.5"	\$15.00
3"	\$25.00
4"	\$60.00
6"	\$170.00
8"	\$360.00
10"	\$645.00

# CUSTOMER IMPACT - WATER

## (Quarterly Bill Comparison)

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Ccf	Size	FY2016	FY2017	\$ Change	FY2017 with Income Discount	\$ Change with Income Discount
3	5/8"	\$ 17.74	\$ 25.72	\$ 7.98	\$ 13.08	\$ (4.66)
6	5/8"	\$ 34.48	\$ 38.80	\$ 4.32	\$ 26.16	\$ (8.32)
9	5/8"	\$ 51.22	\$ 51.88	\$ 0.66	\$ 39.24	\$ (11.98)
12*	5/8"	\$ 67.96	\$ 64.96	\$ (3.00)	\$ 52.32	\$ (15.64)
15	5/8"	\$ 84.70	\$ 78.04	\$ (6.66)	\$ 65.40	\$ (19.30)
20	5/8"	\$ 112.60	\$ 105.68	\$ (6.92)	\$ 93.04	\$ (19.56)
50	1"	\$ 280.75	\$ 299.23	\$ 18.48	N/A	N/A
200	2"	\$ 1,121.00	\$ 1,245.07	\$ 124.07	N/A	N/A
500	3"	\$ 2,800.00	\$ 3,049.51	\$ 249.51	N/A	N/A
1000	4"	\$ 5,595.00	\$ 6,035.85	\$ 440.85	N/A	N/A
2000	6"	\$ 11,190.00	\$ 12,071.69	\$ 881.69	N/A	N/A

\* Represents Typical Residential Customer (12 Ccf is approximately 9,000 gallons)

# CUSTOMER IMPACT – SEWER

## (Quarterly Bill Comparison)

CCF	80% of CCF	Size	FY2016	FY2017	\$ Change
3	2.4	5/8"	\$18.24	\$18.05	(\$0.19)
6	4.8	5/8"	\$36.48	\$36.10	(\$0.38)
9	7.2	5/8"	\$54.72	\$54.14	(\$0.58)
12*	9.6	5/8"	\$72.96	\$72.19	(\$0.77)
15	12	5/8"	\$91.20	\$90.24	(\$0.96)
20	16	5/8"	\$121.60	\$120.32	(\$1.28)
50	40	1"	\$304.00	\$300.80	(\$3.20)
200	160	2"	\$1,216.00	\$1,203.20	(\$12.80)
500	400	3"	\$3,040.00	\$3,008.00	(\$32.00)
1,000	800	4"	\$6,080.00	\$6,016.00	(\$64.00)
2,000	N/A	6"	\$12,160.00	\$15,040.00	\$2,880.00

\* Represents Typical Residential Customer (12 CCF is approximately 9,000 gallons)

# CUSTOMER IMPACT — COMBINED WATER AND SEWER

## (Quarterly Bill Comparison)

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Ccf	Size	FY2016	FY2017	\$ Change	FY2017 with Income Discount	\$ Change with Income Discount
3	5/8"	\$ 35.98	\$ 43.77	\$ 7.37	\$ 31.13	\$ (4.85)
6	5/8"	\$ 70.96	\$ 74.90	\$ 3.52	\$ 62.26	\$ (8.70)
9	5/8"	\$ 105.94	\$ 106.02	\$ (0.34)	\$ 93.38	\$ (12.56)
12*	5/8"	\$ 140.92	\$ 137.15	\$ (4.19)	\$ 124.51	\$ (16.41)
15	5/8"	\$ 175.90	\$ 168.28	\$ (8.04)	\$ 155.64	\$ (20.26)
20	5/8"	\$ 234.20	\$ 226.00	\$ (8.62)	\$ 213.36	\$ (20.84)
50	1"	\$ 584.75	\$ 600.03	\$ 14.23	N/A	N/A
200	2"	\$ 2,337.00	\$ 2,448.27	\$ 107.91	N/A	N/A
500	3"	\$ 5,840.00	\$ 6,057.51	\$ 211.20	N/A	N/A
1000	4"	\$ 11,675.00	\$ 12,051.85	\$ 366.33	N/A	N/A
2000	6"	\$ 23,350.00	\$ 27,111.69	\$ 3,740.66	N/A	N/A

\* Represents Typical Residential Customer (12 Ccf is approximately 9,000 gallons)

# Customer Impacts – Combined Water and Sewer

## Average Quarterly Bill Comparison – Local Businesses

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Business/Organization	Size	Average Quarterly Consumption (Ccf)	Quarterly Water and Sewer Under Current Rate Structure	Quarterly Water and Sewer Under Proposed Rate Structure	Net Quarterly Difference
Coopers' Corner	1"	68	\$ 794.63	\$ 813.08	\$ 18.45
Faces/TD Bank	2"	55	\$ 646.30	\$ 746.55	\$ 100.25
Fairfield Inn	4"	460	\$ 5,378.60	\$ 5,714.41	\$ 335.81
Florence Barber Shop	1 1/2"	123	\$ 1,437.18	\$ 1,506.70	\$ 69.52
Florence Hardware	5/8"	8	\$ 94.28	\$ 95.65	\$ 1.37
Florence Pizza	3/4"	53	\$ 619.23	\$ 622.91	\$ 3.68
Joe's Café	1"	116	\$ 1,354.31	\$ 1,381.21	\$ 26.90
Main Street Cleaners	3/4"	60	\$ 700.85	\$ 705.76	\$ 4.91
Northampton Brewery	1 1/2"	516	\$ 6,019.56	\$ 6,118.95	\$ 99.39
Paradise Copies	3/4"	56	\$ 654.21	\$ 658.42	\$ 4.21
Spoletto	5/8"	216	\$ 2,519.56	\$ 2,545.86	\$ 26.30
Stop and Shop	2"	388	\$ 4,529.08	\$ 4,654.64	\$ 125.56
Sylvester's Restaurant	5/8"	214	\$ 2,496.24	\$ 2,522.18	\$ 25.94
Thornes Marketplace	1 1/2"	808	\$ 9,424.28	\$ 9,545.86	\$ 121.58

# Water and Sewer Bill Calculator:

www.northamptonma.gov/1667/Water-Sewer-Bill-Calculator

Create an Account - Increase your productivity, customize your experience, and engage in information you care about. Sign In

Northampton Boards, Committees & Commissions

Landfill Solar Array

Reverse-911 Notification System

Winter Storm Page

Fiscal Transparency

Senior and Veteran Tax Work Off Program

Single Use Plastic Bag Ban

Water and Sewer Rate Study

Make a Request

Notify Me

City Jobs

Bids & RFPs

Pay Online

My Dashboard

Community Voice  
Your Opinion Matters

CODE RED  
Reverse 911

## WATER & SEWER BILL CALCULATOR

The City of Northampton will be implementing new fixed charges and tiered volumetric rates for water and sewer customers effective July 1, 2016. We have set up this calculator to allow customers to calculate their estimated water and sewer bills under the new rate structure using one of their previous quarterly bills.

**STEP 1:**

Identify your meter size and total water consumption from one of your recent FY2016 quarterly utility bills. The location of those two numbers are circled in red on the sample bill below.

**UTILITY BILL**  
Customer Copy  
Keep this portion for your records

City of Northampton  
Office of the Tax Collector  
212 Main Street, Room 305  
Northampton, MA 01060-3191  
PH: 587-1293

Customer				Location			
Account Number		Parcel Number		Bill Number		Due Date	
[REDACTED]		[REDACTED]		[REDACTED]		01/08/2016	
[REDACTED]		[REDACTED]		[REDACTED]		02/08/2016	
Description	Present Read Date	Previous Read Date	Present Meter Reading	Previous Meter Reading	Usage	Charge	
METER 5/8	12/09/2015	08/25/2015	151700	140600	2100	1.00	
WATER	12/09/2015	08/25/2015				117.18	
SEWER	12/09/2015	08/25/2015				127.88	

Meter Size: 5/8" Water Usage: 2100

**STEP 2:**

Select your meter size, indicate whether or not your home or business is on city sewer, and input your metered quarterly water usage in the fields below and hit the "Calculate" button. Hit "Reset" to correct an error or enter information from another bill:

Meter size:

☐ 5/8"  
☐ 3/4"  
☐ 1"  
☐ 1.5"  
☐ 2"  
☐ 3"  
☐ 4"  
☐ 6"  
☐ 8"

Does your current bill include Sewer?:  
☐ Yes  
☐ No

Usage:  cf

Calculate Reset

## STEP 3:

Review summary below of what your quarterly water and sewer charges would calculate to after applying the new FY2017 rate structure to your past consumption. These numbers are for comparison purposes only - your actual bill will be based on actual future water consumption.

Meter size: 5/8

Quarterly Water Consumption: 12.00 Ccf

Quarterly Fixed Charge: \$12.64

Quarterly Water Charge: \$52.32

TOTAL Quarterly Water Charges: \$64.96

NOTE: Customers who currently qualify for a low-income exemption on Real Estate or the Community Preservation Act (CPA) will receive an exemption on their water and sewer bill equivalent to the fixed charge.



# Massachusetts Water Infrastructure: Toward Financial Sustainability (2012 Report)

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*“For a service that has a very high societal value, where failures will cause great inconveniences, loss of business, and jeopardize the public health, we often fail to pay enough for the service.*

*Ironically, many of us see the value in high monthly fees for internet or cable service. As a point of comparison, water rates on an annualized basis compare to the following rates paid for other commonly used utilities, see chart on right.*

*In a 2010, the ITT Corporation conducted a survey of American voters concerning the value of water. Sixty nine percent of those polled agreed with the statement: ‘I generally take my access to clean water for granted.’ A full 95% of American voters polled in the same survey value water over any other services they receive, including heat and electricity.”*

**Current Average Rates Expressed As Average Monthly Payment And As Percentage Of Median Household Income**

	Avg Monthly Pmt.	% MHI
Water rate	\$ 28	0.52%
Sewer rate	\$ 41	0.75%
Cellular Phone	\$50-60*	0.92%-1.10%
Cable TV/ Internet	\$70**	1.28%
Electricity	\$45-65†	0.83%-1.19%

Sources: \*Kiplinger’s May 2009; \*\*Centris Research April 2009; †Mass. EOEAA website